

## **STATEMENT OF BASIS**

Michelin North America  
Midland City, AL  
Dale County  
604-0009

This proposed significant modification of Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

The Michelin facility located in Dothan manufactures passenger car and light truck rubber tires. This facility does not mix rubber on site, but receives it from other facilities.

The following sources are significant sources of air pollution for this facility:

### **Processes:**

- Milling, Cutting, Joining, and Complexing
- Extruding with Undertread Cementing
- 1<sup>st</sup> and 2<sup>nd</sup> Stage Tire Assembly
- Tire Curing and Finishing Operations
- Tringle Spraying Operations

### **Boilers:**

- One (1) 50 MMBtu/hr Boiler
- Two (2) 25 MMBtu/hr Boilers

## NOTES

1. Incorporation of Air Permit 604-0009-X025. The facility voluntarily controls VOC emissions from BD1. A permit was issued to allow installation of hoods and ductwork in order to capture VOC emissions from BD1 and route them to one of three permitted boilers for incineration.
2. On September 30, 2009, the Department received a 502(b)(10) – Operational Flexibility request. Michelin replaced an existing screw on BD2 extruder with a new screw. The existing screw had worn to the point that the actual current capacity had declined as compared to the capacity when it was installed.
3. The facility requests that the permit be changed to include *§60.542(c) For each undertread cementing operation using a control device, discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month* as an alternate emission limit for BD2 and BD6 undertread cementing.

## BD1 Extruding with Undertread Cementing and Boiler Incineration

This process is apart of the collection of equipment listed under EU002.

### Applicability:

- This unit subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, “*Major Source Operating Permits*”.
- This unit is not subject to the applicable provisions of 40 CFR 60 Subpart BBB, “*Standards of Performance for the Rubber Tire Manufacturing Industry*”. BD1 was constructed in 1979, prior to the January 20, 1983, applicability date.
- This unit is not subject to 40 CFR 64, *Compliance Assurance Monitoring*.

### Emissions Standards:

- There are no unit specific emissions standards for these units.

### Compliance and Performance Test Methods and Procedures:

- There are no unit specific compliance and performance test methods or procedures which apply to these units.

### Emission Monitoring:

- There are no unit specific emissions monitoring requirements applicable to these units.

### Recordkeeping and Reporting Requirements:

- There are no unit specific recordkeeping or reporting requirements applicable to these units.

### Emissions:

Per air permit application forms submitted, the potential emissions from these units are as follows:

Emission Point	Pollutant	Allowable Emissions		Uncontrolled Potential Emissions		Controlled Potential Emissions	
		(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
EU002 (582-29 and 582-31)	VOC	N/A	N/A	23.0	100.7	6.50	28.5
	Total HAP	N/A	N/A	0.10	0.20	0.10	0.20

## **BD2 Extruding with Undertread Cementing and Boiler Incineration**

This process, in conjunction with BD6, is collectively referred to as EU003.

### Applicability:

- This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, “*Major Source Operating Permits*”.
- This unit has enforceable limits in place in order to prevent it from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04. “*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*”.
- Per §60.540, the undertread cementing portion of this unit is subject to the applicable provisions of 40 CFR 60 Subpart BBB, “*Standards of Performance for the Rubber Tire Manufacturing Industry*”.
- The undertread cementing portion of this unit is subject to the applicable provisions of 40 CFR 60 Subpart A, “*General Provisions*”.
- This unit is not subject to 40 CFR 64, *Compliance Assurance Monitoring*. Pre-control potential emissions from this unit do not exceed the major source threshold.

### Emissions Standards:

- *VOC*
  - Each undertread cementing operation shall comply with the following conditions: (§60.542(a)(1))
    1. Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or
    2. Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:
      - (a) 3,870 kg (8,531 lb) of VOC per 28 days,
      - (b) 4,010 kg (8,846 lb) of VOC per 29 days,
      - (c) 4,150 kg (9,149 lb) of VOC per 30 days,
      - (d) 4,280 kg (9,436 lb) of VOC per 31 days, or
      - (e) 4,840 kg (10,670 lb) of VOC per 35 days.
  - Total VOC emissions from this process shall not exceed 39.5 tons during any consecutive twelve (12) month period. (ADEM Admin. Code R. 335-3-14-.04 - Anti-PSD)
  - VOC emissions from this unit shall be captured and incinerated in one of the permitted boilers. The BD2 undertread cementing operations shall demonstrate an overall VOC reduction of at least forty (40.0%) percent. (ADEM Admin. Code R. 335-3-14-.04 - Anti-PSD)

### Compliance and Performance Test Methods and Procedures:

- The owner or operator of an affected facility who elects to use a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), as described under paragraphs (f) and (g) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of overall reduction efficiency. The performance test shall be conducted in accordance with the procedures described under paragraphs (f)(2) (i) through (iv) of this section. (§60.543(b)(2))
- Within 90 calendar days after electing to operate the capture or control device at conditions different from the most recent determination of overall reduction efficiency, the owner or operator of this facility shall conduct performance tests. Performance tests shall be conducted to show compliance with the VOC standards. Compliance with the VOC standards shall be determined by conducting performance tests in accordance with 40 CFR 60 Appendix A Reference Method 25.
- For each undertread cementing operation, the following procedure shall be used to determine compliance with the applicable uncontrolled monthly VOC use limit: (§60.543(c)(1), (2)(i), (3))
  - Determine the density and weight fraction of VOC in each cement from its formulation data or by analysis of the cement using Method 24. (§60.543(c)(1))
  - Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) using the following procedure: (§60.543(c)(2))
    - For each facility for which cement is delivered in batch or via a distribution system that serves only the affected facility: (§60.543(c)(2)(i))

Deleted: Method 25

$$M_o = \sum_{i=1}^a L_{c_i} D_{c_i} W_{o_i}$$

Where:

$a$  = the different number of cements used during the month  
 $L_c$  = volume of cement used during the for a month  
 $D_c$  = density of cement used  
 $W_o$  = weight fraction of VOC in a cement

- Determine the time duration of the monthly compliance period ( $T_d$ ) cemented for the month. (§60.543(c)(3))
- For each undertread cementing operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the percent emission reduction requirement specified under §60.542 (a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i). (§60.543(g)(1))
  - The performance test shall be repeated during conditions described under §60.543 (b)(2). No monthly performance tests are required.
- Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under §60.542(a)(1)(i), (2)(i), (6)(i), (7)(iii),

(8)(i), (9)(i), or (10)(i) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under §60.542(a)(1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), or (10)(ii) shall demonstrate, using the procedures described under §60.543 (c), that the total VOC use at the affected facility has not exceeded the applicable total (uncontrolled) monthly VOC use limit during each of the last 6 months of operation. The owner or operator shall be subject to the applicable percent emission reduction requirement until the conditions of this paragraph and §60.546(h) are satisfied. (§60.543(k))

- The density and weight fraction VOC of each cement shall be determined from its formulation or by analysis of the cement using Method 24 of Appendix A of 40 CFR 60. (§60.547(a)(1))
- If testing is required, volatile organic compound (VOC) emissions shall be determined in accordance with Method 25 of 40 CFR 60, Appendix A. (§60.547(a)(2))
- Controlled VOC emissions from this unit shall be determined by applying the overall VOC reduction factor determined during source testing to total VOC usage.

#### Emission Monitoring:

- The permittee shall conduct biennial (every two years) source testing on one boiler each term in order to demonstrate overall average VOC reduction.
- As an alternative to biennial testing, the permittee shall conduct initial testing on one boiler in order to demonstrate overall VOC reduction along with the operation of anemometers or some other comparable Department approved method to monitor the capture system operation.
- Any alternative monitoring system must be approved by the Department.
- Each owner or operator shall calibrate, maintain, and operate according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder for the temperature of the gas stream in the combustion zone of the incinerator (Boilers 1-4). The temperature monitoring device shall have an accuracy of 1 percent of the temperature being measured in °C or  $\pm 0.5$  °C, whichever is greater. (§60.544(a)(1))

#### Recordkeeping and Reporting Requirements:

- Records of VOC content of any cements or sprays used in this process shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- Each owner or operator of an affected facility that uses a thermal incinerator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation for which the average temperature of the gas stream in the combustion zone was more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance. (§60.545(a))
- Each owner or operator that uses a VOC emission reduction system with a control device that destroys VOC to comply with a percent emission reduction requirement specified in this permit,

shall report the results of the performance tests required under 40CFR60.543(b)(2). The following data shall be included in the report for each of the performance tests: The emission control device efficiency (E), the capture system efficiency (Fc), and the overall system emission reduction (R). (§60.546(c)(4))

- Each owner or operator shall include the following data measured by the temperature monitoring device, in the report for each performance test specified under 40CFR60.546(c): The average combustion temperature measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each thermal incinerator. (§60.546(e)(1))
- Once every 6 months each owner or operator shall report each 3-hour period of operation for which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28°C (50°F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance. If no exceedances occurred during the reporting period then a letter shall be sent indicating that no exceedances occurred. (§60.546(f)(4))
- Records summarizing the monthly VOC emissions from the undertread cementing operation and the number of days in each compliance period shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (§60.545(d))
- Records summarizing the rolling twelve (12) month total VOC emissions from this unit shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- Monthly and updated twelve (12) month VOC emissions records shall be compiled no later than the tenth (10<sup>th</sup>) day of the month following each monthly reporting period. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- During any month, twelve (12) month period, or other compliance period during which there is an exceedance of the VOC emission limit, the Department shall be notified in writing within twenty-four (24) hours of determining the exceedance. The notification shall include the following: (§60.546(f)(2) and ADEM Admin. Code 335-3-16-.06(c)(3))
  - (a) Dates covered during the reporting period;
  - (b) Amount of VOC used during the reporting period;
  - (c) Amount of VOC emitted during the reporting period;
  - (d) Description of the cause of the exceedance; and
  - (e) Description of any corrective action taken.

Emissions:

Per air permit application forms submitted, the expected emissions from this unit are as follows:

Emission Point	Pollutant	Allowable Emissions <sup>b</sup>		Uncontrolled Potential Emissions		Controlled Potential Emissions	
		(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)

EU003 <sup>a</sup> (124-1, 124-2, and 124-3)	VOC	18.0	79.0	19.9	87.0	9.20	40.3
	Total HAP	N/A	N/A	0.10	0.20	0.10	0.20

<sup>a</sup> – Includes emissions from both BD2 and BD6; <sup>b</sup> – Includes allowable emissions from both BD2 and BD6

## **BD6 Extruding with Undertread Cementing with Boiler Incineration**

This process, in conjunction with BD2, is collectively referred to as EU003.

### Applicability:

- This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, “*Major Source Operating Permits*”.
- This unit has enforceable limits in place in order to prevent it from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04. “*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*”.
- Per §60.540, the undertread cementing portion of this unit is subject to the applicable provisions of 40 CFR 60 Subpart BBB, “*Standards of Performance for the Rubber Tire Manufacturing Industry*”.
- The undertread cementing portion of this unit is subject to the applicable provisions of 40 CFR 60 Subpart A, “*General Provisions*”.
- This unit is not subject to 40 CFR 64, *Compliance Assurance Monitoring*. Pre-control potential emissions from this unit do not exceed the major source threshold.

### Emissions Standards:

- *VOC*
  - Each undertread cementing operation shall comply with the following conditions:  
(§60.542(a)(1))
    1. Discharge into the atmosphere no more than 25 percent of the VOC used (75 percent emission reduction) for each month; or
    2. Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period:
      - (f) 3,870 kg (8,531 lb) of VOC per 28 days,
      - (g) 4,010 kg (8,846 lb) of VOC per 29 days,
      - (h) 4,150 kg (9,149 lb) of VOC per 30 days,
      - (i) 4,280 kg (9,436 lb) of VOC per 31 days, or
      - (j) 4,840 kg (10,670 lb) of VOC per 35 days.
  - Combined total VOC emissions from the Tire Assembly Systems (P1/1P and P2/2P) with Michelin A and Michelin B operation, Rubber Processing with Undertread Cementing (BD6), and the Green Tire Spraying operation with Wet Scrubber shall not exceed 39.5 tons during any consecutive twelve (12) month period. (ADEM Admin. Code R. 335-3-14-.04 - Anti-PSD)
  - VOC emissions from the undertread cementing portion of this unit shall be captured and incinerated in one of the permitted boilers. The BD6 undertread cementing operations shall

demonstrate an overall VOC reduction of at least forty-eight (48.0%) percent. (*ADEM Admin. Code R. 335-3-14-.04 - Anti-PSD*)

Compliance and Performance Test Methods and Procedures:

- The owner or operator of an affected facility who elects to use a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), as described under paragraphs (f) and (g) of this section, shall repeat the performance test when directed by the Administrator or when the owner or operator elects to operate the capture system or control device at conditions different from the most recent determination of overall reduction efficiency. The performance test shall be conducted in accordance with the procedures described under paragraphs (f)(2) (i) through (iv) of this section. (§60.543(b)(2))
- Within 90 calendar days after electing to operate the capture or control device at conditions different from the most recent determination of overall reduction efficiency, the owner or operator of this facility shall conduct performance tests. Performance tests shall be conducted to show compliance with the VOC standards. Compliance with the VOC standards shall be determined by conducting performance tests in accordance with 40 CFR 60 Appendix A Reference Method 25.
- For each undertread cementing operation, the following procedure shall be used to determine compliance with the applicable uncontrolled monthly VOC use limit: (§60.543(c)(1), (2)(i), (3))
  - Determine the density and weight fraction of VOC in each cement from its formulation data or by analysis of the cement using Method 24. (§60.543(c)(1))
  - Calculate the total mass of VOC used at the affected facility for the month ( $M_o$ ) using the following procedure: (§60.543(c)(2))
    - For each facility for which cement is delivered in batch or via a distribution system that serves only the affected facility: (§60.543(c)(2)(i))

$$M_o = \sum_{i=1}^a L_{c_i} D_{c_i} W_{o_i}$$

Where:

$a$  = the different number of cements used during the month

$L_c$  = volume of cement used during the for a month

$D_c$  = density of cement used

$W_o$  = weight fraction of VOC in a cement

- Determine the time duration of the monthly compliance period ( $T_d$ ) cemented for the month. (§60.543(c)(3))
- For each undertread cementing operation that uses a VOC emission reduction system with a control device that destroys VOC (e.g., incinerator), the owner or operator shall use the following procedure to determine compliance with the percent emission reduction requirement specified under §60.542 (a) (1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), and (10)(i). (§60.543(g)(1))

- For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed under paragraphs §60.543(f)(2) (i) through (iii). The performance test shall be repeated during conditions described under §60.543 (b)(2). No monthly performance tests are required.
- Each owner or operator of an affected facility who initially elected to be subject to the applicable percent emission reduction requirement specified under §60.542(a)(1)(i), (2)(i), (6)(i), (7)(iii), (8)(i), (9)(i), or (10)(i) and who later seeks to comply with the applicable total (uncontrolled) monthly VOC use limit specified under §60.542(a)(1)(ii), (2)(ii), (6)(ii), (7)(iv), (8)(ii), (9)(ii), or (10)(ii) shall demonstrate, using the procedures described under §60.543 (c), that the total VOC use at the affected facility has not exceeded the applicable total (uncontrolled) monthly VOC use limit during each of the last 6 months of operation. The owner or operator shall be subject to the applicable percent emission reduction requirement until the conditions of this paragraph and §60.546(h) are satisfied.
- The density and weight fraction VOC of each cement shall be determined from its formulation or by analysis of the cement using Method 24 of Appendix A of 40 CFR 60. (§60.547(a)(1))
- If testing is required, volatile organic compound (VOC) emissions shall be determined in accordance with Method 25 of 40 CFR 60, Appendix A. (§60.547(a)(2))
- Controlled VOC emissions from this unit shall be determined by applying the overall VOC reduction factor determined during source testing to total VOC usage.

#### Emission Monitoring:

- The permittee shall conduct biennial (every two years) source testing on one boiler each term in order to demonstrate overall average VOC reduction.
- As an alternative to biennial testing, the permittee shall conduct initial testing on one boiler in order to demonstrate overall VOC reduction along with the operation of anemometers or some other comparable Department approved method to monitor the capture system operation.
- Any alternative monitoring system must be approved by the Department.
- Each owner or operator shall calibrate, maintain, and operate according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder for the temperature of the gas stream in the combustion zone of the incinerator (Boilers 1-4). The temperature monitoring device shall have an accuracy of 1 percent of the temperature being measured in °C or  $\pm 0.5$  °C, whichever is greater. (§60.544(a)(1))

#### Recordkeeping and Reporting Requirements:

- Records of VOC content of any cements or sprays used in this process shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- Each owner or operator of an affected facility that uses a thermal incinerator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator

and records of all 3-hour periods of operation for which the average temperature of the gas stream in the combustion zone was more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance. (§60.545(a))

- Each owner or operator that uses a VOC emission reduction system with a control device that destroys VOC to comply with a percent emission reduction requirement specified in this permit, shall report the results of the performance tests required under 40CFR60.543(b)(2). The following data shall be included in the report for each of the performance tests: The emission control device efficiency (E), the capture system efficiency (Fc), and the overall system emission reduction (R). (§60.546(c)(4))
- Each owner or operator shall include the following data measured by the temperature monitoring device, in the report for each performance test specified under 40CFR60.546(c): The average combustion temperature measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each thermal incinerator. (§60.546(e)(1))
- Once every 6 months each owner or operator shall report each 3-hour period of operation for which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28°C (50°F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance. If no exceedances occurred during the reporting period then a letter shall be sent indicating that no exceedances occurred. (§60.546(f)(4))
- Records summarizing the monthly VOC emissions from the undertread cementing operation and the number of days in each compliance period shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (§60.545(d))
- Records summarizing the rolling twelve (12) month total VOC emissions from this unit shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for at least five (5) years from the date of generation. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- Monthly and updated twelve (12) month VOC emissions records shall be compiled no later than the tenth (10<sup>th</sup>) day of the month following each monthly reporting period. (ADEM Admin. Code R. 335-3-16-.05(c)(2))
- During any month, twelve (12) month period, or other compliance period during which there is an exceedance of the VOC emission limit, the Department shall be notified in writing within twenty-four (24) hours of determining the exceedance. The notification shall include the following: (§60.546(f)(2) and ADEM Admin. Code 335-3-16-.06(c)(3))
  - (a) Dates covered during the reporting period;
  - (b) Amount of VOC used during the reporting period;
  - (c) Amount of VOC emitted during the reporting period;
  - (d) Description of the cause of the exceedance; and
  - (e) Description of any corrective action taken.

Emissions:

Per air permit application forms submitted, the expected emissions from this unit are as follows:

Emission Point	Pollutant	Allowable Emissions <sup>b</sup>		Uncontrolled Potential Emissions		Controlled Potential Emissions	
		(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
EU003 <sup>a</sup> (124-1, 124-2, and 124-3)	VOC	18.0	79.0	19.9	87.0	9.20	40.3
	Total HAP	N/A	N/A	0.10	0.20	0.10	0.20

<sup>a</sup> – Includes emissions from both BD2 and BD6; <sup>b</sup> – Includes allowable emissions from both BD2 and BD6